

REMARKS

Prior to entry of this amendment, claims 1-13 and 18-20 are currently pending in the subject application. By the instant amendment, claims 1, 8, 9, and 13 have been amended, and claims 7, 12, and 19 have been cancelled. Claims 1, 8, 9, and 13 are independent.

A. Introduction

In the outstanding Office Action Made Final:

- 1) claims 1, 2, 6, 9, and 18 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,647,132 to Montillo et al. (“the Montillo et al. reference”);
- 2) claims 3-5 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Montillo et al. reference in view of U.S. Patent No. 6,731,824 to Russell (“the Russell reference”);
- 3) claims 8, 10, 11, 13, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,326,618 to Kane et al. (“the Kane et al. reference”) in view of the Montillo et al. reference; and
- 4) claims 12 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kane et al. reference in view of the Montillo et al. reference and in further view of the Russell reference.

B. Asserted Anticipation Rejections of Claims 1, 2, 6, 9, and 18

In the Office Action Made Final, claims 1, 2, 6, 9, and 18 were rejected under 35 U.S.C. § 102(e) as being anticipated by the Montillo et al. reference. Applicants respectfully traverse this rejection for at least the reasons set forth below.

Applicants respectfully submit that independent claims 1 and 9 have been amended to include limitations of now cancelled original claim 7. In particular, independent claims 1 and 9 have been amended to recite that an alarm is provided when a region is abnormal.

Applicants respectfully submit that the Montillo et al. reference fails to teach or even remotely suggest an alarm when a region is abnormal.

With respect to the assertion on page 6 of the Office action of March 5, 2008, that the Russell reference teaches an alarm that would have been obvious to combine with the Montillo et al. reference, applicants respectfully disagree. In particular, applicants respectfully disagree that switching between image displays, as indicated in the Office action, may be interpreted as an alarm. Applicants respectfully point out that an alarm is defined as a signal indicating warning or a signal drawing attention by the Webster's Dictionary. Accordingly, "providing an alarm when the region is abnormal" refers to warning of or drawing attention to an abnormal region. Applicants respectfully submit that switching between image displays does not provide a signal, much less a signal of warning or a signal drawing attention.

In particular, the Russell reference teaches manually or automatically, i.e., via a timer, switching between displays of an SEM circuit image and a corresponding image of irregularities in the circuit. *The Russell reference*, col. 5, lines 54-60. Applicants respectfully submit that switching between the displays merely enables an operator to alternately see both displays in order to identify defects either from the resulting grayscale image, i.e., image of irregularities, or via comparison of the grayscale image to the SEM image. *Id.* at lines 54-56. Accordingly, at no point does switching between displays in the Russell reference provide a signal of warning or a signal drawing attention. In fact, the Russell reference specifically teaches using a timer for automatically switching between the displays, so an image of irregularities in a circuit is displayed with respect to a predetermined time and not with respect to existence of irregularities. Applicants, therefore, respectfully reiterate that switching between the displays in the Russell reference fails to teach or even remotely suggest an alarm as presently recited in claims 1 and 9.

In view of the above, applicants respectfully reiterate that the Montillo et al. reference fails to teach or suggest each and every element of claims 1 and 9, and therefore, claims 1 and

9 are allowable. Claims 2, 6, and 18 depend from claim 1 and, therefore, are allowable for at least the reasons claim 1 is allowable. Accordingly, favorable reconsideration and withdrawal of the rejection of claims 1, 2, 6, 9, and 18 is respectfully requested.

C. Asserted Obviousness Rejection of Claims 3-5 and 7

In the Office Action Made Final, claims 3-5 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Montillo et al. reference in view of the Russell reference. This rejection is respectfully traversed for at least the reasons set forth below.

By the instant amendment, claim 7 has been cancelled. With respect to claims 3-5, applicants respectfully submit that the combination of the Montillo et al. reference and Russell reference, as discussed above, fails to teach or suggest the method of analyzing a sample by employing a FFT method as recited in claim 1. Accordingly, applicants respectfully submit that claims 3-5 are allowable for at least the reasons set forth above regarding claim 1. Accordingly, favorable reconsideration and withdrawal of the rejection of claims 3-5 is respectfully requested.

D. Asserted Obviousness Rejection of Claims 8, 10, 11, 13, and 20

In the Office Action Made Final, claims 8, 10, 11, 13, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kane et al. reference in view of the Montillo et al. reference. Applicants respectfully traverse this rejection for at least the reasons set forth below.

Applicants respectfully submit that independent claims 8 and 13 have been amended to include limitations of, now cancelled, claim 19. In particular, independent claims 8 and 13 have been amended to recite that measuring the line width of the minute pattern and generating frequency data are simultaneous. Applicants respectfully submit that the Montillo et al. reference, the Kane et al. reference, and the Russell reference, whether alone or in combination, fail to teach or even remotely suggest simultaneous measurement of line width and generation of frequency data.

With respect to the assertion in the Office action that the combination of the Montillo et al. reference, the Kane et al. reference, and the Russell reference teaches the limitation of claim 19,¹ applicants respectfully disagree. Firstly, applicants respectfully point out that limitations of claim 19 incorporated into claim 8 recite simultaneous “*measuring* the line width” and “*generating* data,” *not* “displaying data” as argued in the Office action.² Secondly, applicants respectfully submit that neither of the cited references teaches, or even remotely suggests, that measuring of line widths and generating frequency data is done simultaneously.³

In view of the above, applicants respectfully reiterate that the Montillo et al. reference, the Kane et al. reference, and the Russell reference, whether alone or in combination, fail to teach or suggest each and every element of claims 8 and 13, and therefore, claims 8 and 13 are allowable. Claims 10, 11, and 20 depend from claim 8 and, therefore, are allowable for at least the reasons claim 8 is allowable. Accordingly, favorable reconsideration and withdrawal of the rejection of claims 8, 10, 11, 13, and 20 is respectfully requested.

E. Asserted Obviousness Rejection of Claims 12 and 19

In the Office Action Made Final, claims 12 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kane et al. reference in view of the Montillo et al. reference and in further view of the Russell reference. By the instant amendment, claims 12 and 19 have been cancelled. In view of the above, the rejection of claims 12 and 19 is moot.

F. Entry of Amendment Requested

Applicants respectfully submit that the amendments to claims 1, 8, 9, and 13 include subject matter recited in previously examined claims 7 and 19. Therefore, applicants respectfully submit that consideration of the amendments does not impose an undue burden on

¹ Page 10 of the Office action of March 5, 2008.

² Id.

³ As an additional matter, applicants point out that the speed of detection and visualization of irregularities in the Russell reference does not provide teaching or motivation to perform measurement of widths and detection of irregularities simultaneously.

the Examiner. Applicants further submit that the instant amendment overcomes the rejection set forth in the outstanding Office action and places the pending claims in condition for allowance. Accordingly, entry of the above amendment after final is respectfully requested.

F. Conclusion

The above remarks demonstrate the failings of the outstanding rejections, and are sufficient to overcome them. However, while these remarks may refer to particular claim elements, they are not intended to, nor need they, comprehensively address each and every reason for the patentability of the claimed subject matter over the applied art. Accordingly, applicants respectfully submit that the claims are allowable for reasons including, but not limited to, those set forth above, and patentability of the claims does not depend solely on the particular claim elements discussed above.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

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Date: May 20, 2008



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PETITION and
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.